

Mr. W. H. Shillingford
Ford Electronics and Refrigeration LLC
4747 Western Avenue
Connersville, Indiana 47331

Re: 041-11582
Minor Source Modification to:
Part 70 T041-6896-00004

Dear Mr. Shillingford:

Ford Electronics and Refrigeration LLC was issued a Part 70 Operating permit on February 17, 1999, for an automotive parts manufacturing plant. An application to modify the source was received on November 23, 1999. Pursuant to 326 IAC 2-7-10.5 the modification to increase the maximum throughput of the Thermal De-oiler #2 from 500 parts per hour to 600 parts per hour and replace the existing thermal oxidizer control is approved for construction. This increased throughput will increase the maximum amount of oil loaded to the de-oiler to 66.1 pounds per hour. The revised emission unit description shall be as follows:

one (1) thermal de-oiler (De-oiler #2) processing a maximum of 2400 pounds of metal parts per hour, using a maximum of 66.1 pounds of oil per hour, with a thermal incinerator using natural gas as supplementary fuel at a heat input rate of 2.3 MMBtu per hour for control of VOC, exhausting through one (1) stack (DO3).

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Management (OAM).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.
6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

The proposed operating conditions applicable to these emission units are attached to this Source Modification approval. The source must comply with the requirements of 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12 before operation of any of the proposed emission units can begin.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Janusz Johnson, OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or at (800) 451-6027, press 0 and ask for extension (2-8325), or dial (317) 232-8325.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments

JKJ

cc: File - Fayette County
U.S. EPA, Region V
Fayette County Health Department
Air Compliance Section Inspector - Warren Greiling
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (10) one (1) thermal de-oiler (De-oiler #1) processing a maximum of 6,000 pounds of metal parts per hour, using a maximum of 30 pounds of oil per hour, with a thermal incinerator using natural gas as supplementary fuel at a heat input rate of 7.5 million (MM) British thermal units (Btu) per hour for control of volatile organic compounds (VOC), exhausting through two (2) stacks (DO1 and DO2); and
- (11) one (1) thermal de-oiler (De-oiler #2) processing a maximum of 2400 pounds of metal parts per hour, using a maximum of 66.1 pounds of oil per hour, with a thermal incinerator using natural gas as supplementary fuel at a heat input rate of 2.3 MMBtu per hour for control of VOC, exhausting through one (1) stack (DO3).

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 BACT Condition [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6 and CP-041-9441-00004, issued April 27, 1998, the thermal incinerator (rated at 7.5 MMBtu per hour) on the thermal De-oiler #1 shall be in operation at all times that the de-oiler is in operation. When operating, the thermal incinerator on De-oiler #1 shall maintain a minimum operating temperature of 1,500° F and a gas residence time in the oxidizing zone of 1.0 second, or a temperature and gas residence time determined in compliance tests to maintain at least 95% destruction of VOC captured and a capture efficiency of 100%.

D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for thermal De-oiler #1 and the associated thermal incinerator controlling VOC emissions.

Compliance Determination Requirements

D.4.3 Testing Requirements [326 IAC 2-7-6(1),(6)]

- (a) Within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, the Permittee shall perform VOC testing on each of the two (2) thermal incinerators, controlling VOC emissions from the two (2) thermal de-oilers, to demonstrate compliance with Condition D.4.1 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.
- (b) The Permittee shall perform an additional VOC test on the Thermal De-oiler #2 after modification as approved in Source Modification 041-11582. The testing shall be done to confirm the validity of the uncontrolled VOC emission factor used. The test shall be performed within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up of the modified unit. If the uncontrolled VOC emission rate exceeds 5.7 pounds per hour at maximum capacity, the permittee shall be subject to further review including the applicability of 326 IAC 8-1-6 BACT requirements.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.4.4 Record Keeping Requirements

- (a) The Permittee shall maintain records of the operating temperature and the gas residence time in the oxidizing zone for the thermal incinerator, controlling VOC emissions from the Thermal De-oiler #1.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**Indiana Department of Environmental Management
Office of Air Management**

**Technical Support Document (TSD) for a Part 70 Minor Source
Modification.**

Source Background and Description

Source Name:	Ford Electronics and Refrigeration LLC
Source Location:	4747 Western Avenue, Connersville, Indiana 47331
County:	Fayette
SIC Code:	3714
Operation Permit No.:	T041-6896-00004
Operation Permit Issuance Date:	February 17, 1999
Minor Source Modification No.:	041-11582-00004
Permit Reviewer:	Janusz Johnson

The Office of Air Management (OAM) has reviewed a modification application from Ford Electronics and Refrigeration LLC relating to the modification of the Thermal De-Oiler #2 and related thermal oxidizer to increase the throughput capacity of the unit from 500 parts per hour to 600 parts per hour. As a result of the increased throughput, Ford Electronics and Refrigeration LLC estimates that the maximum amount of oil loaded to the unit will increase from 40 pounds per hour to 66.1 pounds per hour. The revised facility description of the modified de-oiler and air pollution control equipment will be as follows:

one (1) thermal de-oiler (De-oiler #2) processing a maximum of 2400 pounds of metal parts per hour, using a maximum of 66.1 pounds of oil per hour, with a thermal incinerator using natural gas as supplementary fuel at a heat input rate of 2.3 MMBtu per hour for control of VOC, exhausting through one (1) stack (DO3).

History

Ford Electronics and Refrigeration LLC was issued a Part 70 Operating permit on February 17, 1999, for an automotive parts manufacturing plant. Subsequently, a Significant Source Modification was issued on March 15, 1999, for an Induction Hardening Line, air makeup units, an Anodizing System and some machining equipment. On November 23, 1999, Ford Electronics and Refrigeration LLC submitted an application to increase the throughput capacity of the Thermal De-Oiler #2.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
DO3	De-Oiler #2 Thermal Oxidizer	51	1.8	1450	1550

Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on November 23, 1999, with additional information received on January 28, 2000.

Emission Calculations

The modified Thermal De-Oiler #2 will have an oil loading of 66.1 pounds per hour when operating at maximum capacity. Based on stack testing conducted on the de-oiler pursuant to Part 70 permit issued February 17, 1999, the volatile organic compound (VOC) emission rate before controls was determined to be 0.081 pounds per pound of oil loaded to the de-oiler. The following calculations determine the potential to emit (PTE) of the modified emission unit before controls:

$$\begin{array}{lcl} \text{Uncontrolled} & & \\ 66.1 \text{ lbs oil/hr} \times 0.081 \text{ lb VOC/lb oil} \times 8760 \text{ hours/year} & = & 46,901.9 \text{ lbs VOC/yr} \\ & \times 1 \text{ ton/2000 lbs} & = 23.5 \text{ tons VOC/yr} \end{array}$$

The potential emissions from the combustion of natural gas associated with the proposed thermal oxidizer to control VOC emissions from the de-oiler has been calculated in Appendix A of the TSD (4 pages).

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

The table below reflects the change in PTE associated with the modification. This change is defined by the difference between the permitted PTE of the existing emission unit (including applicable limits and controls which are federally enforceable) and the future PTE of the modified unit. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

The permitted VOC PTE of the Thermal De-Oiler #2 is 8.8 tons per year based on permitted uncontrolled emissions of 175.2 tons per year and the requirement to operate a thermal oxidizer control system with 95% control efficiency. The future VOC PTE of the modified Thermal De-Oiler #2 is 23.8 tons per year based on revised emission factor information. The future PTE does not include controls.

The change in PTE associated with the proposed thermal oxidizer control (T.O.) is based on the difference between the PTE of the permitted 2.5 MMBtu/hr thermal oxidizer and the new 2.3 MMBtu/hr thermal oxidizer. The PTE's of these units are calculated in Appendix A of this TSD (2 pages). The requirement to operate the thermal oxidizer for the de-oiler in the Part 70 permit was based on the applicability of 326 IAC 8-1-6. This rule is no longer applicable due to the revision of the emission factors. The requirement will be removed from the permit as a result.

Pollutant	Potential To Emit (tons/year)
PM	0.0

PM-10	0.0
SO ₂	0.0
VOC	15.0
CO	-0.1
NO _x	-0.1

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Minor Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(d)(4) because the potential to emit (PTE) volatile organic compounds (VOC) from the modification of Thermal De-Oiler #2 is greater than fifteen (15) tons per year but less than twenty-five (25) tons per year.

County Attainment Status

The source is located in Fayette County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Fayette County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Fayette County has been classified as attainment or unclassifiable for all other regulated air pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

PSD Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	less than 250
PM10	less than 250
SO ₂	less than 250
VOC	greater than 250
CO	less than 250
NO _x	greater than 250

- (a) This existing source is a major stationary source because at least one attainment regulated pollutant is emitted at a rate of 250 tons per year.
- (b) These emissions were based on the AIRS Facility Quick Look Report, dated April 1, 1998.

Potential to Emit of Modification as a PSD Project

The table below summarizes the potential to emit, reflecting all limits, of the Thermal De-Oiler #2 expansion project. For the purpose of Prevention of Significant Deterioration (PSD) review, the increase associated with the project is determined based on the actual emissions increase which is defined as the future PTE less the past actual emissions of the unit. The control equipment proposed for the modified unit will not be considered federally enforceable because the underlying applicable rule (326 IAC 8-1-6) will no longer be applicable and the requirement to operate the control will be removed from the permit. The past actual VOC emissions for the Thermal De-Oiler #2 were not considered because the unit has operated less than one year. The future PTE VOC of the Thermal De-Oiler #2 is 23.8 tons per year.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Thermal De-Oiler #2	0.0	0.0	0.0	23.8	0.0	0.0	neg.
PSD Significant Threshold	25	15	40	40	100	40	N.A.

- (a) This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification. The thermal de-oiler is not subject to the requirements of 40 CFR 63.460 through 63.468 (Subpart T) because it does not use halogenated solvents and is not a vapor or cold solvent cleaning machine.

State Rule Applicability

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of VOC and SO₂. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this permit:

- (a) Visible emissions shall not exceed an average of forty percent (40%) opacity in twenty-four (24) consecutive readings as determined by 326 IAC 5-1-4,
- (b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period.

326 IAC 2-4.1 (New Source Toxics Control)

Pursuant to 326 IAC 2-4.1 (New Source Toxics Control), any new process or production unit, which in and of itself emits or has the potential to emit (PTE) 10 tons per year of any HAP or 25

tons per year of any combination of HAPs, must be controlled using technologies consistent with Maximum Achievable Control Technology (MACT). The thermal de-oiler does not emit any HAPs, therefore, 326 IAC 2-4.1 does not apply.

326 IAC 8-1-6 (New Facilities, General Reduction Requirements)

The thermal de-oiler (De-oiler #2) is not subject to the requirements of 326 IAC 8-1-6. This rule requires all facilities constructed after January 1, 1980, which have potential VOC emission rates of 25 or more tons per year, and which are not otherwise regulated by other provisions of 326 IAC 8, to reduce VOC emissions using Best Available Control Technology (BACT). The modified thermal de-oiler has potential VOC emissions less than 25 tons per year based on stack testing conducted on the de-oiler pursuant to Part 70 permit issued February 17, 1999. The previous BACT determination for the Thermal De-Oiler #2 in CP-041-9441-00004, issued April 27, 1998, is no longer applicable due to the revised emissions information. The permit will be revised to remove the requirement to operate the Thermal Oxidizer control.

326 IAC 8-3 (Organic Solvent Degreasing Operations)

The thermal de-oiler is not subject to the requirements of 326 IAC 8-3. For facilities constructed after July 1, 1990, this rule only applies to the type of degreasers described in 326 IAC 8-3-1(b)(1)(A) through (1)(C). Because the de-oiler is not one of the types of degreasers described in subdivision (1)(A) through (1)(C), it is not subject to the requirements of 326 IAC 8-3.

No other 326 IAC 8 rules apply.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Because the applicability of 326 IAC 8-1-6 has changed based on revised emission factor information, there is no longer a requirement to operate the thermal oxidizer control system for the modified Thermal De-oiler #2. Therefore, the compliance monitoring requirements associated with the emission unit control will be removed from the permit. There are no other compliance monitoring requirements which apply.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 041-11582-00004.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Page 1 of 4 TSD App A

Company Name: Ford Electronics and Refrigeration Corp.
Address City IN Zip: Connersville, IN
CP: 041-11582
Plt ID: 041-00004
Reviewer: Janusz Johnson
Date: January 20, 2000

Proposed new thermal oxidizer

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

2.3

20.1

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.0	0.1	0.0	**see below		
				1.0	0.1	0.8

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

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updated 4/99

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Page 2 of 4 TSD App A

Company Name: Ford Electronics and Refrigeration Corp.
Address City IN Zip: Connersville, IN
CP: 041-11582
Plt ID: 041-00004
Reviewer: Janusz Johnson
Date: January 20, 2000

Proposed new thermal oxidizer

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	2.116E-05	1.209E-05	7.556E-04	1.813E-02	3.425E-05

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	5.037E-06	1.108E-05	1.410E-05	3.828E-06	2.116E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Page 3 of 4 TSD App A

Company Name: Ford Electronics and Refrigeration Corp.
Address City IN Zip: Connersville, IN
CP: 041-11582
Plt ID: 041-00004
Reviewer: Janusz Johnson
Date: January 20, 2000

Previously permitted thermal oxidizer

Heat Input Capacity Potential Throughput
MMBtu/hr MMCF/yr

2.5

21.9

Pollutant						
Emission Factor in lb/MMCF	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
	**see below					
Potential Emission in tons/yr	0.0	0.1	0.0	1.1	0.1	0.9

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

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Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Page 4 of 4 TSD App A

Company Name: Ford Electronics and Refrigeration Corp.
Address City IN Zip: Connersville, IN
CP: 041-11582
Plt ID: 041-00004
Reviewer: Janusz Johnson
Date: January 20, 2000

Previously permitted thermal oxidizer

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	2.300E-05	1.314E-05	8.213E-04	1.971E-02	3.723E-05

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	5.475E-06	1.205E-05	1.533E-05	4.161E-06	2.300E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.